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CAN OPEN SPACES BE SELF-FINANCING?

An open space nearby can enhance property values and tax revenue.

by Noelwah R. Netusil, Erin Boyd, Zaid van Griffen, Michelle LaMerrill, and Elisabeth Rainsberger

Residents of metropolitan areas are using ballot measures to express their desire for more parks and open spaces. In May of 1995, residents of the Portland, Oregon metropolitan area approved a \$135.6 million general obligation bond measure to purchase land for regional parks, natural areas, trails, and greenway corridors. As of March 2000, close to 5,700 acres of the targeted 6,000 acres had been acquired. Questions regarding how, and if, the acquired lands should be developed, and how development will be funded, have not yet been answered.

Planning Portland

Numerous studies have shown a positive relationship between home values and proximity to trails, parks, and greenway corridors (National Park Service, 1995). Proximity to open spaces — developed urban parks, cemeteries, golf courses, and natural areas — could increase home values and subsequently increase property tax revenues in the Portland metropolitan area. The increase in property tax revenue could feasibly be used to offset the development and maintenance costs associated with these newly acquired open spaces.

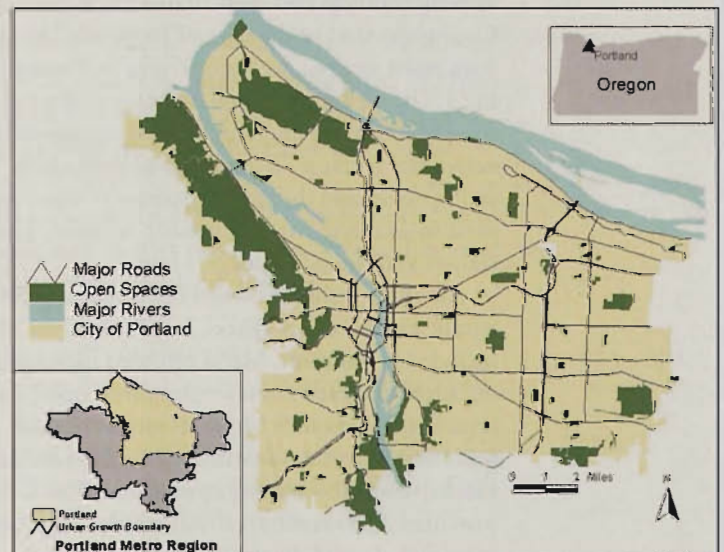


Figure 1: City of Portland, Oregon Showing Urban Growth Boundaries, Open Spaces, and Major Rivers

Oregon Green. Three of Portland, Oregon's open spaces are (clockwise) Oaks Bottoms, Sellwood Park, and the Crystal Spings Rhododendron Garden. The U.S. saw the passage of nine of ten state open space ballot measures and 116 of 136 local bond measures, raising some \$1 billion in support of such areas.

This raises the interesting possibility that open space preservation could be self-financing.

In the early 1970s, a statewide land-use planning effort placed an urban growth boundary (UGB) around every community in Oregon. Portland's UGB, which is drawn to accommodate 20-years of anticipated growth, provides a clear delineation between urban and rural land. Metro, a directly elected regional government encompassing the three Portland metropolitan counties, is charged with managing lands within Portland's UGB, an area of approximately 236,000 acres with 1.3 million residents (Metro 2000)

Dramatic increases in the region's population during the late 1980s and throughout the 1990s brought enormous pressure to develop land within Portland's UGB for commercial and residential use. Unsure about the amount of open space in the Portland metropolitan area, Metro completed a study in 1989 that classified 9,200 acres, 8 percent of the Metro study area, as open space. This information formed the basis for the 1995 bond measure to purchase an additional 6,000 acres of open space.

Many communities are seeking creative ways to fund the development and maintenance of their open spaces.

Our study used data on 16,750 single-family home sales that occurred between 1990-1992 in the Multnomah County portion of the City of Portland. The study area, with open spaces and major rivers, is illustrated in Figure 1. Detailed information on house characteristics (age, square feet, bedrooms, and the like), neighborhood characteristics (such as distance from downtown Portland, traffic noise, and the site's proximity to open space) were used to estimate the relationship between each characteristic and the sale price of a home.

All of the publicly owned open spaces and those privately owned open spaces larger than 10 acres were included in our study. Metro provided information on the distance from each home to the nearest open space. Based on conversations with Metro recreation officials, the study was limited to homes within a 1,500-foot radius (7.5 blocks) from the nearest open space. The U.S. Census provided information (1990) on the median assessed value and allowed the study area to be divided into neighborhoods that had mostly high, mostly medium, or mostly low value homes. These variables allowed examination



of the relationship between a home's sale price and its proximity to open space across different neighborhoods.

The median sale price for a home in the entire study area increased by 174 percent between January, 1990 and January, 1999 raising concerns about the affordability of homes for low-income households. If the preservation of an open space in a low-income neighborhood increases the value of homes in the surrounding area, it might decrease the affordability and increase property taxes, further burdening low-income households.

Home Values and Open Spaces

We found that the effect of proximity to open space varied by the value of homes in a neighborhood. A home located in a high value (highest 30 percent of assessed home values) neighborhood and within 1,500 feet of an open space was estimated to sell, on average, for approximately \$9,900 (1999 dollars) more than the same home located within 1,500 feet of an open space in a low assessed value neighborhood. Our analysis has, to the extent possible, factored out all other neighborhood variables that could influence a home's sale price such as the home's location in the Portland metropolitan area.

Our study does not show that proximity to open spaces will lead to an increase in a home's sale price if the home is in a low or medium value neighborhood. This does not rule out the possibility of an increase occurring, but on average, this did not happen within our study area. This finding is important given the concern expressed earlier about the rapid escalation in home sale prices in the Portland metropolitan area during the past ten years.



Can Open Spaces be Self-Financing?

An open space can be self-financing only if it increases the assessed value of nearby homes. Assuming a property tax rate of 1.5 percent, a home located within 1,500 feet of open space in a high value neighborhood will generate approximately \$150 in additional property tax revenues per year. Approximately 800 homes are located within 1,500 feet of a representative three-acre open space in the study area. If we assume that these homes are in a high-value neighborhood, they will generate aggregate property tax revenues of approximately \$120,000 because of the existence of the open space. Although development and maintenance costs vary with the characteristics of a specific open space, it may be possible for some open spaces to be self-financing.

Caution is in order because, according to our analysis, the possibility for self-financing occurs only in neighborhoods where homes have high assessed values. What drives this result? One possible explanation is that the positive effects of locating near certain open spaces, such as proximity to recreation opportunities, are offset by negative effects such as noise and traffic congestion for homes in neighborhoods where assessed values are low or medium. Another possibility is that open space is a "normal good," and individuals who live in high value neighborhoods are willing to pay more to locate near open spaces.

Another caution is that the estimated property tax revenue generated by open spaces in the study area does not accrue to an "open space" or "recreation" fund. These tax revenues are part of the general property tax fund from which many publicly provided goods, including the development and maintenance of open spaces, are usually funded. The open spaces recently acquired by Metro may generate additional property tax revenues if homeowners located near these sites did not anticipate their preservation when purchasing their homes and the assessed values are a true reflection of market values.

Many communities are aggressively pursuing plans to preserve open spaces and are seeking creative ways to fund the development and maintenance of their purchases. In November 1999, nine of ten state open space ballot measures and 116 of 136 local bond measures passed raising an estimated \$1 billion. President Clinton has proposed the "Land Legacy" program that would set aside \$1.1 billion in federal funds for the protection of open spaces and has pledged to fully fund the Land and Water Conservation Fund, a trust fund created 35 years ago to underwrite the purchase of wildlife habitat and the creation of urban parks. Congress is also debating how to provide permanent funding for federal and state land purchases with some proposals pledging more funding than the President's Land Legacy program. Given this national attention, results from the Portland area are informative in suggesting that, to a limited extent, funding for the development and maintenance of newly acquired open spaces may be generated simply by their preservation. ■

■ For more information:

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